

Title (en)

Carrier frequency offset detection and correction

Title (de)

Erkennung und Korrektur der Trägerfrequenzablage

Title (fr)

Détection et correction du décalage de la fréquence de porteuse

Publication

EP 1471703 A3 20060802 (EN)

Application

EP 04009387 A 20040421

Priority

JP 2003121729 A 20030425

Abstract (en)

[origin: EP1471703A2] A frequency offset detection processing system includes a TCXO, demodulation unit, frequency offset detection unit, and AFC control unit. In the AFC control unit, a majority determination unit determines whether each of phase moving amount detection values by a plurality of frequency offsets is positive or negative and totalizes to determine which of the positive values and the negative values are larger in number. A detection value conversion unit converts the phase moving amount detection values in accordance with the majority determination result. An averaging processing unit adds the phase moving amount detection values and divides the sum by the number of added values. A correction value calculation unit calculates a frequency offset from the phase moving amounts after averaging processing. A TCXO control unit corrects TCXO control on the basis of the calculated frequency offset. A frequency offset detection processing method is also disclosed.

[origin: EP1471703A2] A determination unit determines whether positive or negative phase moving amount detection value is in majority. A converter converts phase moving amount detection values read from frequency offset detector, based on result of determination unit. A calculation unit calculates frequency offset after averaging the detection values, and controller corrects temperature compensated crystal oscillator (TCXO) control based on the offset. An independent claim is also included for frequency offset detection processing method.

IPC 8 full level

H04L 27/00 (2006.01); **H04L 27/227** (2006.01); **H04B 1/707** (2011.01); **H04B 1/7087** (2011.01)

CPC (source: EP US)

H04L 27/0014 (2013.01 - EP US); **H04L 2027/0028** (2013.01 - EP US); **H04L 2027/0053** (2013.01 - EP US); **H04L 2027/0069** (2013.01 - EP US); **H04L 2027/0089** (2013.01 - EP US)

Citation (search report)

- [A] GB 2354678 A 20010328 - NEC CORP [JP]
- [A] EP 1063779 A2 20001227 - NIPPON ELECTRIC CO [JP]
- [A] EP 1241846 A2 20020918 - TEXAS INSTRUMENTS INC [US]
- [A] EP 0389974 A1 19901003 - MOTOROLA INC [US]

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CN102073055A; EP2348779A1; EP2187531A4; WO2010009763A1; US8630361B2; US8743983B2

Designated contracting state (EPC)

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DOCDB simple family (publication)

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DOCDB simple family (application)

EP 04009387 A 20040421; CN 200410034181 A 20040423; DE 602004014838 T 20040421; JP 2003121729 A 20030425; US 82726004 A 20040420